

**In the Claims:**

**Claim 1** (currently amended)      A dry operated inlet end-box for a mercury cathode chlor-alkali cell comprising a brine feed conduit, a slit for the admission of recycled mercury and at least one internal device for ~~the~~ heat exchange between said brine feed and said recycled mercury.

**Claim 2** (original)      The end-box of Claim 1 further comprising a baffle for the formation of a mobile film of mercury of predetermined thickness.

**Claim 3** (currently amended)      The end-box of Claim 1 ~~or 2~~ wherein said at least one internal device comprises a first element for the dispersion of said recycled mercury.

**Claim 4** (original)      The end-box of Claim 3 wherein said at least one internal device comprises a second element for raising the level of said brine feed.

**Claim 5** (currently amended)      The end-box of ~~any one of the previous~~ ~~claims~~ Claim 1 wherein said thermal exchange internal device is formed by elements made of or lined with a material chemically resistant in the operating conditions of a chlor-alkali cell, optionally selected from the group comprising titanium and alloys thereof, perfluorinated plastic materials, polycyclopentadiene, polyvinylidenefluoride, and polychlorotrifluoroethylene.

**Claim 6** (currently amended)      The end-box of ~~any one of Claims~~ Claim 3  
~~to 5~~ wherein said first element for the dispersion of mercury consists of a horizontal  
cylindrical distributor provided with perforations along the lower generatrix.

**Claim 7** (currently amended)      The end-box of Claim 4 ~~or 5~~ wherein said  
first element for the dispersion of mercury consists of a horizontal tray provided with  
lifted edge.

**Claim 8** (original)      The end-box of Claim 7 wherein said lifted edge  
provided with at least one multiplicity of upper openings.

**Claim 9** (original)      The end-box of Claim 8 wherein said upper openings  
have a passage section of triangular shape.

**Claim 10** (original)      The end-box of Claim 8 wherein said edge is provided  
with a double multiplicity of respectively upper and lower openings, optionally having a  
triangular passage section.

**Claim 11** (currently amended)      The end-box of method of ~~any one of claims~~  
Claim 3 ~~to 10~~ wherein said first element for the dispersion of mercury is connected to a  
wall of said end-box and said slit is sealed.

**Claim 12** (currently amended)      The end-box of method of ~~any one of claims~~  
Claim 3 to 10 wherein said first element for the dispersion of mercury is connected to a  
coaxial pipe internal to the brine feed conduit and said slit is sealed.

**Claim 13** (currently amended)      The end-box of method of ~~any one of claims~~  
Claim 3 to 10 wherein said first element for the dispersion of mercury is connected to a  
pipe coupled to said slit.

**Claim 14** (original)      The end-box of method of ~~any one of claims~~ Claim 4 to 13  
wherein said second element for raising the brine level is a case provided with an  
overflow.

**Claim 15** (original)      The end-box of Claim 14 wherein said case is  
provided with a damper of the falling brine which pours out above said overflow.

**Claim 16** (currently amended)      The end-box of method of ~~any one of claims~~  
Claim 4 to 15 wherein said second element for raising the level is connected to the brine  
feed conduit.

**Claim 17** (currently amended)      The end-box of method of ~~any one of claims~~  
Claim 4 to 16 wherein said first element for the dispersion of mercury is inserted inside  
said second element for raising the level.

**Claim 18** (original)      The end-box of Claim 17 wherein said first element for the dispersion of mercury is placed below the brine level in said second element.

**Claim 19** (currently amended)      The end-box of method of Claim 14 ~~or 15~~ wherein the said case for raising the level is provided with one or more ducts for the discharge of mercury containing a level of mercury in the interior.

**Claim 20** (original)      The end-box of Claim 19 wherein said one or more ducts are made of or lined with electrically non conductive and chemically inert material.

**Claim 21** (currently amended)      The end-box of ~~any one of the previous claims~~ Claim 1 characterised by being made of metallic material provided with an eboite or rubber coating, or of non metallic material.

**Claim 22** (currently amended)      The end-box of ~~any one of the previous claims~~ Claim 1 wherein said internal device for the heat exchange is electrically insulated from the chlor-alkali cell.

**Claim 23** (currently amended)      Mercury cathode chlor-alkali electrolysis cell comprising the inlet end-box of ~~any one of the previous claims~~ Claim 1.

**Claim 24** (currently amended)      Process of electrolysis of brine for the production of chlorine and caustic soda or potash, comprising ~~the use of the~~ using a cell of Claim 23.

**Claim 25** (original)      The process of Claim 24 wherein the thermal longitudinal distribution in the cell is uniform.

**Cancel Claim 26.**